ENVIRONMENTAL CHEMISTS

Date of Report: 09/10/98 Date Received: 08/28/98

Project: Percent of acid, PO# M76999 Date Samples Extracted: 09/04/98 Date Extracts Analyzed: 09/08/98

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR IRON

USING METHOD 6010

Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID			<u>Iron</u>
M76999 A La	rge Tank		60,000
M76999 B Sm	all Tank		51,000
Method Blank	.		< 0.2

ENVIRONMENTAL CHEMISTS

Date of Report: 09/10/98 Date Received: 08/28/98

Project: Percent of acid, PO# M76999

Date Analyzed: 08/31/98

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR % ACID

Results Reported as Percent Acid by Volume

Sample ID	% Acid	
M76999 A Large Tank	9.1	
M76999 B Small Tank	8.9	
M76999 C Rinse Tank	6.2	

ENVIRONMENTAL CHEMISTS

Date of Report: 09/10/98 Date Received: 08/28/98

Project: Percent of acid, PO# M76999

Date Extracted: 08/31/98 Date Analyzed: 08/31/98

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR SPECIFIC GRAVITY @ 15.56 °C

Sample ID	Specific Gravity
M76999 A Large Tank	1.27
M76999 B Small Tank	1.28
M76999 C Rinse Tank	1.15
Method Blank	1.00

ENVIRONMENTAL CHEMISTS

Date of Report: 09/10/98 Date Received: 08/28/98

Project: Percent of acid, PO# M76999

QUALITY ASSURANCE RESULTS FOR IRON BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 808110-01 (Duplicate)

				Relative		
	Reporting	Sample	Duplicate	Percent	Acceptance	
Analyte	Units	Result	Result	Difference	Criteria	
Iron	mg/l (ppm)	5.4	5.1	6	0-20	

Laboratory Code: 808110-01 (Matrix Spike)

	Reporting	Spike	Sample	% Recove	ery % Recover	ry Acceptance	e
Analyte	Units	Level	Result	MS	MSD	Criteria	RPD
Iron	mg/l (ppm)	10	5.4	103	109	50-150	6

Laboratory Code: Laboratory Control Sample

	Reporting	Spike	% Recove	ry % Recovery	Acceptance	•
Analyte	Units	Level	LCS	LCSD	Criteria	RPD
Iron	mg/l (ppm)	10	107	103	80-120	4

ENVIRONMENTAL CHEMISTS

Date of Report: 09/10/98 Date Received: 08/28/98

Project: Percent of acid, PO# M76999

QUALITY ASSURANCE RESULTS FOR SPECIFIC GRAVITY

Laboratory Code: 808111-01 (Duplicate)

	Sample	Dunlianto	Relative Percent	Acceptance	
Analyte	Result	Result	Difference	Criteria	
Specific Gravity@ 15.56°C	1.27	1.27	0	0-20	7

FRIEDMAN & BRUYA, INC. ²^12 16th Avenue West . attle, WA 98119-2029 (206) 285-8282

808111

SAMPLE CHAIN OF CUSTODY

Send Report To: ASK		ppen L	Norks	Contact_	DERAKO A -	Thomas
Address 628 H City, State, Zip Seatth	ANTORC	24	7.1			7-750
Phone # (206) 387	8379	FAX #_		387-4309	Date 8-27-	·98
SITE NO.		PRO	JECT NAMI	3	PURCHASE ORD	PR#
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TROSECT EDUATION						
REMARKS						je 5.
					Dispose after 30 d. Return Samples Call for Instruction	ays
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Received by:	. 1					

FORMS/COC

08/13/98

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Scattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

September 10, 1998

DUPLICATE COPY

INVOICE #98ACU0910-1

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Percent of acid, PO# M76999: Results of testing requested by Gerry Thompson for material submitted on August 28, 1998.

2 water samples analyzed for Iron	
using Method 6010 @ \$35 per sample	\$ 70.00
3 water samples analyzed for Percent of Acid	
@ \$25 per sample	75.00
3 water samples analyzed for	
Specific Gravity @ \$25 per sample	<u>75.00</u>
Amount Due	\$ 220.00

FEDERAL TAX ID(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

September 10, 1998

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on August 28, 1998 from your Percent of acid, PO# M76999 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Manuel Marti Project Manager

Enclosures ACU0910R.DOC